

CLAIMS

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is as follows:

- 1 1. A method for converting a two-dimensional image to a three-dimensional
2 image for display through a micro optical medium, comprising:
3 inputting to a digital computer a 2D file representing a two dimensional
4 image;
5 displaying a two-dimensional image corresponding to said 2D file;
6 generating a depth map corresponding to said two-dimensional image;
7 receiving a user-entered depth command assigning a first depth value to a
8 portion of said depth map corresponding to a first area;
9 assigning a second depth value to a portion of said depth map not
10 corresponding to said first area;
11 generating a parallax image of said two-dimensional image shifting said
12 first area with respect to an area of said two-dimensional image within said first
13 area, said shifting based on said first depth value and said second depth value;
14 displaying an anaglyph image based on said two-dimensional image and
15 said parallax image;
16 receiving a user-entered rendering command and, in response, generating
17 a rasterized, interlaced image file including alternating strips of said two-
18 dimensional image and said parallax image for printing on a micro optical media;

19 and

20 printing said interlaced image file on said micro optical medium.

1 2. A method according to claim 1 further comprising:

2 receiving a user-entered outlining command identifying said first area of
3 said two-dimensional image.

1 3. A method according to claim 2 wherein said receiving a user-entered
2 outlining command includes receiving, via a graphical user interface, a trace
3 command identifying an outer peripheral line of said first area.

1 4. A method according to claim 1 wherein said generating a parallax image
2 of said two-dimensional image includes pre-shifting said first area in a direction
3 opposite a direction of said shifting, such that when said image is viewed through
4 said micro-optical medium it appears at a lateral position substantially co-located
5 with its original position within said image.

1 5. A method for converting a two-dimensional image to a three-dimensional
2 image for display through a micro optical medium, comprising:

3 inputting to a digital computer a 2D file representing a two dimensional
4 image;

5 displaying a two-dimensional image corresponding to said 2D file;

6 generating a multi-layer information file having information defining a

7 multi-layer image, said defining including establishing a number of layers and a
8 parallax information establishing a distance between at least a first and a second
9 of said layers;

10 receiving external commands associating a first area of said two-
11 dimensional image to said first layer of a multi-layer image and associating a
12 second area of said two-dimensional image to said second layer of said multi-
13 layer image;

14 generating a first projection of said image of said multi-layered image
15 representing a left eye view and a second projection of said multi-layer image
16 representing a right eye view, said projection based on;

17 displaying an anaglyph image based on said first projection and second
18 projection;

19 receiving external layer movement commands changing said distance
20 between said first layer and said second layer;

21 displaying an updated anaglyph image based on said received layer
22 movement commands;

23 generating at least a first frame and a second frame, said first frame
24 representing a projection of said multiplayer image onto a first left eye image
25 plane and said second frame representing a projection of said multiplayer image
26 onto a first right eye image plane;

27 generating an interlaced file including alternating strips of said first frame
28 and said second frame; and

29 printing said interlaced image file on said micro optical medium.